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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/882,100

06/15/2001

Arthur J. Carlson

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EXAMINER

GHEBRETINSAE, TEMESGHEN

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

12/02/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/882,100	Applicant(s) CARLSON, ARTHUR J.	
	Examiner Temesghen Ghebretinsae	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Response to Arguments

2. In view of the appeal brief filed on 7/15/09, PROSECUTION IS HEREBY REOPENED. New rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

The Applicant's argument against the prior art rejections of claims 1-22 as being unpatentable over Dirschedi et al (6,262,994) in view of Gross et al (6,549,520) and Jones 92002/0106010) have been reconsidered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art page 2,, lines 4-9 in view of Hardy III (5,781,598).

Consider claim 1,7,1. The admitted prior art discloses a method of restricting symbol size in an ADSL system comprising obtaining a data rate during initialization (inherent) and forming symbols using a multiple of a predetermined number of bits per symbol or forming symbols using any integer number (i.e. arbitrary) of bits per symbol (see page 2, lines 4-9.)

“As an alternative, it has been proposed in forthcoming revisions to the current standards that the total number of bits, L, per symbol be allowed to be any integer (i.e., arbitrary), rather than simply a multiple of 8. While this proposed alternative addresses the excess data carrying capacity problem mentioned above, it introduces its own associated problems.”

The prior art differs from the claimed invention in that, the prior art does not explicitly disclose if the symbols are formed based on the data rate. However, Hardy (5,781,598) discloses a method and apparatus for transmitting data from the first station

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to second station comprising the steps of: obtaining a data rate during initialization; comparing the data rate to a threshold (setting a threshold data rate); forming (or transmitting data) symbols using any integer number of bits per symbol (a character mode) if the data rate is below the threshold; and forming (or transmitting data) symbols using a multiple of a predetermined number of bits per symbol (packet mode) if the data rate is above the threshold. (see abstract and col.3, lines 40-57 col.4, lines 33-37 and claims 1 and 13).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the method and apparatus of Hardy (forming symbols based on the data rate) in the system of the prior art . The suggestion/motivation for doing so would have been to solve the excess data carrying capacity problem and cost (see admitted prior art page, 2, lines 4-9).

As per claim 7, 13, the admitted prior art in view of Hardy disclose the limitations of the claim as applied in claim1. Further more, Hardy discloses a method and means for sending message to choose a symbol size (see col.12, lines 5-15 and fig.3).

As per claim 2-3,8-9,18-20, the data rate comprises an estimated maximum received data rate and method and means for comparing the maximum data rate to the threshold (see col.4, lines 33-40and fig.3A).

As per claims 4-6,10-12,15-17, Admitted prior art in view of Hardy disclose the limitations of claim 1 as applied above. Further, the particularly claimed values of thresholds and numbers of bits per symbol are not claimed as being related to any

particular advantage or feature of the invention. None of the claimed values are disclosed as providing any synergistic outcome. Rather, the use of any of the claimed values would lead only to routine and predictable results. Therefore the uses of the particularly claimed values (and any others) are considered to be a matter of design choice to be chosen by one having ordinary skill in the art depending upon a desired operation of the system.

As per claim 14,21-22, the admitted prior art discloses that the pre selected number of bits per symbol could be any integer(i.e. arbitrary) rather than simply a multiple of 8.(see col.2,, lines 4-9).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 571-272-3017. The examiner can normally be reached on Monday-Friday from 8 to 6. The examiner can also be reached on alternate .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammed, can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temesghen Ghebretinsae
Primary Examiner
Art Unit 2611

/Temesghen Ghebretinsae/

Primary Examiner, Art Unit 2611

11/30/09

/Mohammad H Ghayour/

Supervisory Patent Examiner, Art Unit 2611